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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,118	07/02/2001	Katsunori Hanakawa	740630-38	5087

22204 7590 07/28/2003  
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EXAMINER

WILKINS III, HARRY D

ART UNIT PAPER NUMBER

1742

DATE MAILED: 07/28/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n No.

09/896,118

Applicant(s)

HANAKAWA ET AL.

Examin r

Harry D Wilkins, III

Art Unit

1742

-- Th MAILING DATE of this communication app ars on th cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-19, 21-23 and 25-28 is/are allowed.
- 6) ☒ Claim(s) 20 and 24 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Objections*

1. Claim 25 is objected to because of the following informalities: in line 2, "hardness" is misspelled "hardiness". Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hook (US 4,046,601) in view of Applicant's admission of prior art.

Hook teaches a method for producing a formed member of a steel sheet by (see abstract, col. 1, lines 7-20, col. 3, lines 53-65, col. 6, lines 30-37, Table I and Table II)

(a) preparing a steel sheet material with a tensile strength of 317 MPa (b) which contains Ti, Al and Cb (Nb) (i.e.-nitriding elements), (c) forming by stamping or deep drawing (i.e.-plastic forming), (d) subsequently strengthening the steel sheet by nitriding to achieve a final hardness of HRC 36 (about 342 HV) with (e) the full through thickness strengthened (hardened) such that the hardness is essentially equal across the thickness.

However, Hook does not teach that the formed member was for a vehicle body.

Applicant admits as prior art (see page 1, lines 9-20 and page 3, lines 6-12) that it was known to improve the performance of steel sheets for a vehicle body to treat the sheet by nitriding after press forming to ensure press formability.

Therefore, it would have been obvious to one of ordinary skill in the art to have utilized the method of Hook for a vehicle body because Applicant admits that there was a need for increased strength in the steel sheets while maintaining the formability of the sheet, both of which are provided for by the method of Hook.

In addition, Hook does not teach the "tailored blank method" which, as admitted as prior art by Applicant (see page 5, line 5 to page 7, line 12) includes preparing a first blank material and a second blank material, joining the two blanks by welding and performing plastic forming to obtain a final formed member. The advantage of this method is (see page 5, lines 15-20) the possibility of obtaining a formed member having a part therein of which properties are different from other parts for a predetermined specification in accordance with the properties of the blank material, while generally improving yield of the sheet-like material. Therefore, it would have been obvious to one of ordinary skill in the art to have used the "tailored blank method" of the admitted prior art for making the part of a vehicle body using the steel sheet and method of Hook because of the ability to achieve predetermined properties that vary across a workpiece. It would have been obvious to perform the nitriding after the plastic forming because Hook teaches (see col. 1, lines 11-16) that the nitriding occurs subsequent to the forming step.

Regarding claims 24, Hook teaches, as above, a formed member made of a steel sheet having an average hardness of HRC 36 (about 342 HV) that is made by plastically forming a sheet into a predetermined shape and performing nitriding after the plastic forming wherein the steel sheet contains Ti, Nb and Al and the steel sheet is through hardened (i.e.-the hardness is approximately equal across the entire thickness). See discussion above regarding claim 20. It would have been obvious to have used the conventional tailored blank method of the prior art for the plastic forming step of Hook because of the various advantages discussed above.

#### ***Response to Arguments***

4. Applicant's arguments filed 13 June 2003 have been fully considered but they are not persuasive. Applicant argued that by performing nitriding treatment on the second blank material (i.e.-steel such as that disclosed by Hook), a vehicle body formed in accordance with the claims is able to absorb the collision energy with high efficiency.

In response to Applicant's argument, the ability to absorb collision energy would have been expected in the steel of Hook that has been through nitrided as claimed because the increased strength provided by the nitriding would better withstand collision.

#### ***Allowable Subject Matter***

5. Claims 14-19, 21-23 and 25-28 are allowed.

6. The following is an examiner's statement of reasons for allowance: Hook does not teach, and the prior art does not provide motivation to treat only desired portions of the formed member to provide the increased strength/hardness, such that when the

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formed member deforms by bending, the formed member deforms at the boundary between the treated and untreated regions.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D Wilkins, III whose telephone number is 703-305-9927. The examiner can normally be reached on M-Th 10:00am-8:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Harry D Wilkins, III  
Examiner  
Art Unit 1742

hdw  
July 23, 2003

ROY KING  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700